

U.S.S.N.: 09/731,412
Filed: December 6, 2000
AMENDMENT

APPENDIX: Clean Copy of Claims as Amended

20. (twice amended) A method for administering a therapeutic or prophylactic agent comprising administering to a patient a matrix for delivery of a therapeutic or prophylactic agent, wherein the matrix is formed of a biocompatible polymer having incorporated therein an therapeutic or prophylactic agent and an effective amount of a hydrophobic or amphiphilic compound to modify the diffusion of water into the matrix and the release of the therapeutic or prophylactic agent from the matrix, wherein the drug is released over shorter periods of time as compared to release from matrices not incorporating the hydrophobic or amphiphilic compound, the matrix being formed by a method comprising emulsifying a polymer solution, the therapeutic or prophylactic agent, hydrophobic or amphiphilic compound, and pore forming agent, then removing solvent and pore forming agent to produce a matrix.

21. The method of claim 20 wherein the matrix is in the form of microparticles.

22. The method of claim 20 wherein the hydrophobic or amphiphilic compound is incorporated into the matrix at a ratio of between 0.01 and 60 by weight of hydrophobic compound to weight of polymer.

23. The method of claim 20 wherein the hydrophobic or amphiphilic compound is a lipid incorporated into the matrix at a ratio of between 0.01 and 30 (weight lipid/weight matrix material).

24. The method of claim 23 wherein the lipid is selected from the group consisting of fatty acids and derivatives, mono-, di and triglycerides, phospholipids, sphingolipids, cholesterol and steroid derivatives, oils, vitamins and terpenes.

U.S.S.N.: 09/731,412
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25. The method of claim 24 wherein the lipid is a phospholipid selected from the group consisting of phosphatidic acids, phosphatidyl cholines with both saturated and unsaturated lipids, phosphatidyl ethanolamines, phosphatidylglycerols, phosphatidylserines, phosphatidylinositols, lysophosphatidyl derivatives, cardiolipin, and β -acyl-y-alkyl phospholipids.

26. The method of claim 25 wherein the phospholipid is selected from the group consisting of dioleoylphosphatidylcholine, dimyristoylphosphatidylcholine, dipentadecanoylphosphatidylcholine dilauroylphosphatidylcholine, dipalmitoylphosphatidylcholine, distearoylphosphatidylcholine, diarachidoylphosphatidylcholine, dibehenoylphosphatidylcholine, ditricosanoylphosphatidylcholine, dilignoceroylphatidylcholine; and phosphatidylethanolamines.

27. The method of claim 20 wherein the agent is a therapeutic agent.

28. The method of claim 20 wherein the matrix is formed of a bioadhesive polymer.

29. The method of claim 20 wherein the matrix is formed of a polymer selected from the group consisting of poly(hydroxy acids), polyanhydrides, polyorthoesters, polyamides, polycarbonates, polyalkylenes, polyalkylene glycols, polyalkylene oxides, polyalkylene terephthalates, polyvinyl alcohols, polyvinyl ethers, polyvinyl esters, polyvinyl halides, polyvinylpyrrolidone, polysiloxanes, poly(vinyl alcohols), poly(vinyl acetate), polystyrene, polyurethanes and co-polymers thereof, synthetic celluloses, polyacrylic acids, poly(butyric acid), poly(valeric acid), and poly(lactide-co-caprolactone), ethylene vinyl acetate, copolymers and blends thereof.

30. The method of claim 20 wherein the matrix is formed of a protein or polysaccharide.

U.S.S.N.: 09/731,412
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- 12 31. The method of claim 20 wherein the matrix is in a pharmaceutically acceptable carrier for topical application or application to a mucosal surface.
- 13 32. The method of claim 20 wherein the matrix is in a pharmaceutically acceptable carrier for injection.
- 14 33. The method of claim 20 wherein the matrix is formulated for administration rectally or vaginally.
- 15 34. The method of claim 21 wherein the microparticles are formulated for pulmonary administration.

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